

Request for Information (RFI)

**By the
State of Tennessee
Department of Finance and Administration**

RFI Number: 317.03-146

A. Statement of Intent:

The State of Tennessee (State), Department of Finance and Administration, Office for Information Resources (OIR), Tennessee Board of Regents (TBR), and the University of Tennessee (UT), issues this Request for Information (RFI) for the purpose of obtaining information to help State leadership determine the feasibility of leasing a fiber backbone infrastructure. Prospective vendors are strongly encouraged to respond to this RFI. The information received in response to this RFI will help determine the direction of any future Request for Proposal (RFP) for the Tennessee Information Infrastructure 2 (TNII-2) hardware, implementation and management services although there is no guarantee an RFP will ever be developed as a result of this RFI. Respondent information will also be used to document the business case and funding requirements for fiber ownership.

B. Background

Across America, states are making strategic investments in essential technology infrastructure as the information technology revolution continues to redefine competition in research, education, government services, and business in a global economy. The state's existing TNII contract expires April 2007. The present K12 contract providing service to Tennessee's schools expires June 2007. Higher Education's recent Cyberinfrastructure Commission report finds a need for an innovative state-of-the-art infrastructure on which to build research and collaboration between institutions. Vehicles on which to build economic development through the extension of modern network and data services need improvement statewide. Government and education require a reliable, secure infrastructure to function and provide services to the citizens of the State of Tennessee.

The exact form of service to meet Tennessee's needs in the future has not been determined. Our requirements analysis and interface with industry will help shape the approach to continued and improved service.

C. General Instructions:

C.1. SUPPORT SERVICES AND INTEGRATED SOLUTIONS

The State's primary intention in issuing this RFI is to gain insight into fiber availability and the potential costs associated with a long-term dark fiber infrastructure with a turn-key implementation, meaning fully ready segments end to end for fiber multiplexer equipment implementation and use.

The State may be interested in a strong partnership with a provider that could provide possible installation and provisioning of equipment and remote hands support as part of an eventual contract. The benefits of such an arrangement will be weighed against the flexibility and cost effectiveness of installing and maintaining equipment.

While the State expects that a number of responses will result from this RFI, vendors may work together to integrate some segments of the response. Potential integrated solutions should clearly list separate items of the integrated solutions. The State will accept any information for any segments of the network.

C.2. GENERAL OVERVIEW OF FIBER REQUIREMENTS

The State may purchase or lease, 20 year Indefeasible Rights of Use (IRU), a diverse long-haul fiber infrastructure of two fibers per segment as listed and illustrated below:

Segments

1. Memphis and Nashville,
2. Nashville and Knoxville
3. Nashville and Chattanooga
4. Knoxville and Chattanooga
5. Knoxville and Johnson City
6. Memphis and Chattanooga

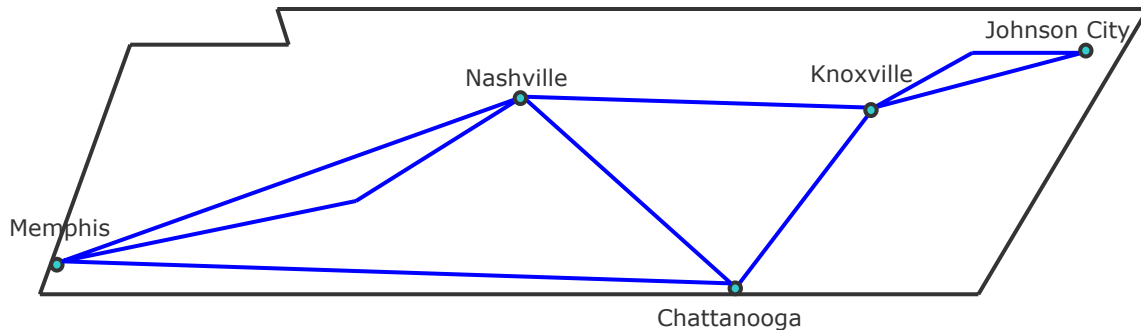


Figure 1. Long-Haul Fiber

The State anticipates installing a 10 Gbps DWDM network on the Respondent's fiber. It is highly desirable that the Respondent provides LEAF/E-LEAF, TRUEWAVE or other non-zero dispersion-shifted fiber such as those that meet the ITU-T G.655 specifications, consistently throughout the network to simplify engineering and maintenance of the State DWDM electronics. **Respondents must identify the fiber type they use and should explicitly note any segments that contain other than dispersion compensated fibers in their response.**

Ongoing costs such as fiber operation and maintenance (O&M) and any SLA's offered must accompany the vendor's response to determine the lowest overall costs.

Respondents must disclose all property tax liabilities and other taxes and fees that may be assignable to the State with the IRU in the fee schedule to the State from the Respondent.

The State expects that O&M contract (for IRU fiber) to be for a 5-year term, with potential 3 (three) 5-year extension terms. Respondents should quote a year-by-year payment schedule.

Plats of the routes the vendors intend to lease must be supplied along with locations of splice and regeneration points along the routes. Map should be provided in the response.

C.3. LEASED DARK FIBER INFRASTRUCTURE AND SITE REQUIREMENTS

Generally, there are two types of facilities anticipated on each route. These site types are Primary Sites or Points of Presence (PoP) in major metropolitan areas and Regeneration or running-line sites.

In general, the State will require a collocation rack in the Respondent's facilities to house optical regeneration or add-drop equipment. Respondent should specify if they are able to provide locked cabinets for the State equipment and if they can build cage around the equipment if requested by the State.

In listing collocation capabilities, Respondents should indicate if they believe POTS is available in each of the collocation sites. Additionally, Respondents should outline any costs to the State to extend POTS service from the Telco demarcation point to the State collocation racks.

Collocation Racks or Cages must provide the following power at each rack:

- Conditioned, uninterruptible power for 24 hours in the event of a commercial power failure.
- 48V DC dual power feeds of 10 Amps each (with the ability to purchase more in 10 Amp increments) for running line sites.
- 48V DC dual power feeds of 60 Amps each for any primary State site where equipment will be located.
- Convenience power outlets of 120 V AC within 8 feet from rack.

Respondents must agree to allow the State staff or state contractors to enter the facilities for maintenance purposes with availability seven days a week twenty-four hours per day (7X24). Respondents should attach a copy of their policies and any potential fees describing the requirements to allow the State staff or state contractors to access the facilities for maintenance purposes. Any related costs should be detailed in the RFI response.

The facilities must be a dual-entrance facility.

Responses should provide the following information for each site:

Primary Sites:

- Detail the address of the Respondent's facility.
- Detail site access policies and normal vendor staffing at the facility.
- Detail rack rental fees with 60 amps of power on A&B feeds.
- Where the State indicates it expects to bring its fiber to the facility to meet the vendor, the Respondent should detail the side of the building and street on which any meet-me holes or building entry conduits may be available. The Respondent should provide a site-plan diagram for the site and zero manhole locations.
- If known, the Respondent is encouraged to detail any local loop providers, dark fiber providers, CLECs or other service providers that may have services available to reach remote sites for cross-connection at this facility. If the Respondent has its own metro network connecting to this site, it should also detail its capabilities. Indicate if plain-old-telephone services are available in the facility and if there any fees or issues regarding extending that service to the State racks.
- Detail cross connect fees, if any, between the collocation rack where the State will be located and the long-line fiber.

Regeneration (Running Line):

- Detail the address of facility. If no street address is available, provide geographic coordinates of the facility.
- Detail site access policies and normal vendor site staffing.
- Detail rack rental fees with 30 Amps of power on each of A&B feeds.
- Detail additional non-recurring and recurring costs to add amperage to the A&B feeds.
- Detail the side of the building and street on which any meet-me holes or building entry conduits may be available. The Respondent should provide a site-plan diagram for the site and zero manhole locations.
- If known, the Respondent is encouraged to detail any local loop providers, dark fiber providers, CLECs or other service providers that may have services available to reach remote sites for cross-connection at this facility. If the Respondent has its own metro network connecting to this site, it should also detail its capabilities. Indicate if plain-old-telephone services are available in the facility.
- Detail cross connect fees, if any, between the collocation rack and the long-line fiber.

Cross connect expectations and contractual requirements should be fully detailed including costs to connect from the State collocation racks to vendor long-line fibers, costs to cross connect to other vendors already in each facility, and approaches and costs to bring new the State provided fibers to meet-me or termination locations at each facility.

C.4. CROSS-CONNECT AND OPEN INTERCONNECTION REQUIREMENTS

The State requires that the Respondent support "vendor neutral" or "open interconnection cross connect" requests within their facilities. Pricing for cross connects should be included in the response and include both recurring and non-recurring costs for the initial the State network described. It is possible that after the initial build, the State will require additional cross-connects to the State provided fiber, to the LEC's terminal at a POP or to alternate carriers. At locations where these options are available, the Respondent must describe any cross-connect policies and all related cross-connect non-recurring and recurring costs.

The State would prefer that Respondents include cross-connect costs for long-haul fiber interconnection to the State collocation racks in the long-term operating costs charged to the State to the extent possible. The State expects a mostly static environment on the long-haul fibers after initial installation.

C.5. MEET-ME MANHOLE AND MID-SPAN INTERCONNECTION SPLICING

The Respondent should detail policies and guidelines that document Meet-Me Manhole and Mid-Span Interconnection procedures along with detailed costs for these activities.

Respondents may assume that the State can bring fiber physically to a vendor-provided mid-span splice point on a vendor's long-haul network. Respondents should detail the operational requirements and costs to splice those State fibers into the State leased fibers at the mid-span splice point. In scenarios where Respondent fiber is not accessible to the State provided fiber (such as where the mid-span meet-me point is on a high voltage transmission line tower), the Respondent shall indicate procedures for constructing an accessible meet-me point as well as estimated per-foot construction costs based on prior similar build-outs.

C.6. REMOTE HANDS SUPPORT

The State is soliciting information as part of the RFI for Remote Hands Support during normal business hours as well as off-hours emergency support. Respondents should provide a description of how they envision such a service working. The Respondent should detail in the charts included with the fiber

segment details for the RFI response coverage availability and response times for each POP location. These services should be priced a-la-carte

These services can include, but are not limited to:

1. Power On/Off,
2. Eyes on Equipment (with telephone support from the State team),
3. Connect / Disconnect Loop-Back optical fibers and Cross Connects.

C.7. Questions Regarding this RFI:

Please feel free to contact the Department of Contact of finance and Administration with any questions regarding this RFI. All questions shall be in writing through email as the responses may be provided to all potential responders.

The main contact will be:

Vickie Stanfill
TNII Executive Director
Department of Finance and Administration
15th Floor Tennessee Tower
312 8th Avenue, North
Nashville, TN 37243-0288
Phone 615.253.5529
Fax 615.253.1433
Vickie.Stanfill@state.tn.us

D. Instructions For Responding:

Submit your Request for Information response including Appendix A, Pricing Document, via email by March 17, 2006 with reference Request for Information # 317.03-146 to:

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TNII Executive Director
Department of Finance and Administration
15th Floor Tennessee Tower
312 8th Avenue, North
Nashville, TN 37243-0288
Phone 615.253.5529
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Appendix A
Pricing Document
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Insert the pricing for dark fiber pair for each segment as provided in the following pricing table. This is for a turn-key solution (any turn-up expenses are to be included in the fiber segment totals). Dark fiber shall be based on a 20 year IRU. Insert the costs for any other expenses in the appropriate columns as designated.

Dark Fiber Segment	Dark Fiber Pair Segment Pricing	Annual Operation and Maintenance	Cross Connection and Splicing	Annual Co-location Pricing	Any Additional Charges (explain below)
Memphis to Nashville	\$	\$	\$	\$	\$
Memphis to Chattanooga	\$	\$	\$	\$	\$
Nashville to Chattanooga	\$	\$	\$	\$	\$
Nashville to Knoxville	\$	\$	\$	\$	\$
Chattanooga to Knoxville	\$	\$	\$	\$	\$
Knoxville to Johnson City	\$	\$	\$	\$	\$

Explanations for any additional charges indicated in the last column:

If Applicable:

O&M Contract year-by-year payment schedule \$ _____
Property tax liabilities & other taxes/fees assignable to the State of Tennessee \$ _____
POTs service extension from demarcation point to State collocation racks \$ _____
Cost to purchase 10 Amp increments for power feeds \$ _____
Associated fees for state staff/contractors 7x24 access to enter facilities for maintenance purposes \$ _____
Rack Rental fees for 60 amps of power for A&B feeds @ respondent's facility \$ _____
Cross connect fees and non recurring fees between State of Tennessee collocation rack and long-line fiber \$ _____
Meet-Me point estimated per-foot construction costs \$ _____
Remote Hands and Eyes – Hourly Rate \$ _____ and Off-Hour Rate \$ _____